

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS**

THE UNIVERSITY OF UTAH,

Plaintiff,

v.

MAX-PLANCK-GESELLSCHAFT ZUR
FÖRDERUNG DER WISSENSCHAFTEN
e.V., a corporation organized under the
laws of Germany; MAX-PLANCK-
INNOVATION GmbH, a corporation
organized under the laws of Germany;
WHITEHEAD INSTITUTE FOR
BIOMEDICAL RESEARCH, a Delaware
corporation; MASSACHUSETTS
INSTITUTE OF TECHNOLOGY, a
Massachusetts corporation; UNIVERSITY
OF MASSACHUSETTS, a Massachusetts
corporation; and ALNYLAM
PHARMACEUTICALS, INC., a Delaware
corporation,

Defendants.

Civil Action No. 1:11-cv-10484

**MEMORANDUM IN SUPPORT OF DEFENDANTS' MOTION TO DISMISS THE
UNIVERSITY OF UTAH'S FIRST AMENDED COMPLAINT**

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Pursuant to Federal Rule of Civil Procedure 12(b)(6), defendants Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V., Max-Planck-Innovation GmbH (together, “Max Planck”), Whitehead Institute for Biomedical Research (“Whitehead”), Massachusetts Institute of Technology (“MIT”), and Alnylam Pharmaceuticals, Inc. (“Alnylam”) (collectively, the “Moving Defendants”) submit this memorandum in support of their motion to dismiss the University of Utah’s (“Plaintiff”) First Amended Complaint (“FAC”).

I. INTRODUCTION

All of the University of Utah’s claims are premised on the allegation that one of its faculty members, Dr. Brenda Bass, should be named either as sole or joint inventor on two patents in the field of RNA interference, referred to as the Tuschl II Patents.¹ The FAC fails to allege facts showing either that Dr. Bass conceived of every step of every claim of the Tuschl II Patents (as required to establish sole inventorship) or that Dr. Bass participated in a collaborative effort that resulted in the conception of the invention claimed in the Tuschl II Patents (as required to establish joint inventorship). Because the University of Utah does not (and cannot) make these essential allegations, this action should be dismissed.

The University of Utah’s claim that Dr. Bass should be named as sole inventor is an oddity, to say the least. All claims of the Tuschl II Patents require synthesizing RNA strands of a specific length and combining the synthesized strands to form a double stranded RNA molecule having at least one overhang of several nucleotides on one particular end of an RNA strand (referred to as the “3’ end,” pronounced “three prime”). Yet the FAC nowhere alleges that Dr. Bass conceived of the steps of synthesizing and combining RNA strands to form any sort of

¹ The subject matter of the Tuschl II Patents and the field of RNA interference are already familiar to the Court from prior litigation. *See Max-Planck-Gesellschaft zur Förderung der*

double stranded RNA molecule. For this reason alone, the University of Utah's sole inventorship claims necessarily fail. *See, e.g., Sewall v. Walters*, 21 F.3d 411, 415 (Fed. Cir. 1994) ("Conception exists when a definite and permanent idea of an operative invention, including every feature of the subject matter sought to be patented, is known." (Emphasis added)).

The University of Utah's joint inventorship claims also fail. Collaboration is a legal requirement for joint inventor status—and the FAC does not allege anything approaching the type of collaborative activity between Dr. Bass and the named inventors of the Tuschl II Patents required to establish joint inventorship. The University of Utah's joint inventorship claim is based on the unprecedented notion that routine interactions between independent researchers, such as interactions at professional conferences, are sufficient to support a claim of joint inventorship. In particular, the University of Utah alleges that the required collaboration exists because (1) one of the three Tuschl II inventors read an article that she wrote; (2) Dr. Bass made a presentation at a scientific conference attended by none of the Tuschl II inventors; (3) Dr. Bass made a presentation at another scientific conference that was attended by two of the Tuschl II inventors (although the FAC does not say whether either of them was present for Dr. Bass's presentation or what Dr. Bass said at her presentation) and attended a dinner at that conference during which she chatted with one of the Tuschl II inventors; and (4) Dr. Bass had other unidentified communications with one of the Tuschl II inventors at unspecified dates and times. Most of these activities are not collaborative at all; they reflect Dr. Bass's own, independent work contained in an article and two conference presentations. The other activities—dinner

Wissenschaften e.V. v. Whitehead Institute for Biomedical Research, 650 F. Supp. 2d 114 (D. Mass. 2009).

conversation and unidentified meetings (which receive virtually no substantive description in the FAC)—do not evince a collaborative effort aimed at achieving a joint goal.

No court has ever held that routine interactions between scientists conducting separate research programs at separate institutions constitutes the type of “collaboration” necessary to support a claim for joint inventorship. And for good reason. If the University of Utah’s slippery standard for collaboration were the law, it would have a chilling effect on the free exchange of ideas among academic researchers at scientific meetings. Indeed, researchers would even have to monitor their dinner conversation with care—or at least think twice before sitting across the dinner table from a University of Utah researcher—lest they give rise to a potential joint inventorship claim that would jeopardize their patent rights. The Court should reject the University of Utah’s legally untenable and unprecedented theory of joint inventorship.

The University of Utah has also asserted a grab bag of state-law claims against Alnylam and Max Planck, including claims for conversion, replevin, unjust enrichment, common law unfair competition, false advertising, and for a violation of Massachusetts General Laws c. 93A. But all of these claims are predicated on the University of Utah’s inventorship claims. Because Dr. Bass is neither a sole nor joint inventor of the Tuschl II Patents, the University of Utah’s state-law claims fail, as well.

Finally, the Moving Defendants join in UMass’s separately filed Motion to Dismiss pursuant to Federal Rule of Civil Procedure 12(b)(1). For the reasons set forth in UMass’s Motion, this Court does not have jurisdiction over the University of Utah’s claims against UMass. Instead, under 28 U.S.C. § 1251(a), the Supreme Court has “original and exclusive jurisdiction” over those claims, as they are “between two or more states.” Because UMass is an

indispensable party to this case as a co-owner of the Tuschl II Patents, the University of Utah's entire case, including its claims against the Moving Defendants, should be dismissed.

II. FACTUAL BACKGROUND

A. The Tuschl I And Tuschl II Patent Families

Plaintiff's claims are directed to two issued U.S. Patents in what is referred to as the Tuschl II patent family: U.S. Patent No. 7,056,704 (the "'704 Patent"), which issued on June 6, 2006; and U.S. Patent No. 7,078,196 (the "'196 Patent," and collectively with the '704 Patent, the "Tuschl II Patents"), which issued on July 18, 2006. (FAC ¶ 17.) The named inventors on the Tuschl II Patents are Thomas Tuschl, Sayda Elbashir and Winfried Lendeckel. (*Id.*) The Tuschl II Patents are co-assigned to Max Planck, Whitehead, MIT and UMass. (*Id.*)

Plaintiff's FAC also refers to patent applications in the Tuschl I patent family. The named inventors on the Tuschl I applications are Thomas Tuschl, Phillip Sharp, David Bartel and Phillip Zamore. (*Id.* ¶ 16.) ***Plaintiff concedes that it is not currently pursuing any relief with respect to the Tuschl I patent family.*** (*Id.*) Plaintiff's claims are instead predicated on the theory that Dr. Bass should be named as an inventor on the Tuschl II Patents. (*Id.* ¶¶ 85-133.)

The Tuschl II Patents relate to the field of RNA interference ("RNAi") and are both entitled "RNA Interference Mediating Small RNA Molecules." (Heinrich Decl. Exs. 1, 2.)² RNAi refers to a method of preventing a cell from making a particular protein. This process can be useful in treating diseases associated with over-production of a particular protein.

² Plaintiff appended 31 exhibits to its original Complaint, including the Tuschl II Patents, but did not append any exhibits to its FAC. However, Plaintiff specifically refers to the Tuschl II Patents in its FAC and those patents form the basis for all of Plaintiff's claims. As a result, the Court can and should consider the Tuschl II Patents in deciding this Motion. "When . . . a complaint's factual allegations are expressly linked to—and admittedly dependent upon—a document (the authenticity of which is not challenged), that document effectively merges into the pleadings and the trial court can review it in deciding a motion to dismiss under Rule 12(b)(6)." *Beddall v. State Street Bank & Trust Co.*, 137 F.3d 12, 17 (1st Cir. 1998).

RNAi works at the genetic level. Genes are regions of DNA—two helical strands each coiled around the same axis—that contain the code for the production of proteins. *Max-Planck-Gesellschaft*, 650 F. Supp. 2d at 116. Each gene codes for a different protein. The process whereby a cell makes a protein involves two steps, commonly referred to as “transcription” and “translation.” When a gene coding for a particular protein is active, the two strands of DNA unwind. In the “transcription” step, chemical mechanisms inside the cell read the code in one of those DNA strands and produce a single-stranded chain called messenger RNA (“mRNA”), which contains the code for directing the production of the same protein. *Id.* Then, in the “translation” step, other cellular mechanisms read the code in the mRNA strand and produce the coded-for protein. *Id.* RNAi is a process whereby a novel molecule—a *double-stranded* RNA molecule (called “dsRNA”)—is inserted into a cell and then directs the destruction of mRNA before it can be translated into a protein. *Id.* at 117. RNAi is sometimes referred to as “gene silencing.”

The claims of the Tuschl II Patents are directed to methods of preparing a particular type of dsRNA molecule that can mediate RNAi. This molecule has at least one “3’ overhang”—a sequence of nucleotides (the building blocks of DNA and RNA) on one end of an RNA strand (called the “3’ end”) that extends beyond (i.e., hangs over) the other RNA strand that makes up a dsRNA molecule. (Heinrich Decl. Exs. 1, 2.). All claims of the Tuschl II Patents require “synthesizing” and “combining” two RNA strands having a length from 19-25 nucleotides. Claim 1 of the ’704 patent is representative:

1. A method for preparing a double stranded RNA molecule which mediates the cleavage of an mRNA in a mammalian cell, comprising
 - (a) synthesizing two RNA strands each having a length from 19-25 nucleotides, and

- (b) combining the synthesized RNA strands under conditions suitable to form a double stranded RNA molecule, wherein said double stranded RNA molecule has a double stranded region of 14-24 nucleotides in length and one or two 3' overhang regions of 1-5 nucleotides in length.

(*Id.* Ex. 1 at col. 65:60-67, col. 66:59-61 (emphasis added).)

B. Dr. Bass's Alleged Conception

As evidence of Dr. Bass's alleged conception of the subject matter of the Tuschl II Patents, Plaintiff relies on a "mini-review" by Dr. Bass in the April 28, 2000 issue of the journal *Cell*. (FAC ¶ 40.) A "mini-review" is a short article that comments upon research reported by other scientists in the same issue of that journal. Dr. Bass's mini-review commented on an article authored by Drs. Tuschl, Sharp, Bartel and Zamore entitled "RNAi: double-stranded RNA directs the ATP dependent cleavage of mRNA at 21 to 23 nucleotide intervals." That article described the authors' discovery that long dsRNA molecules introduced into certain cell preparations were cleaved into short dsRNA fragments of about 21-23 nucleotides, and that these short dsRNA fragments could then be used to mediate RNAi when introduced into other cell preparations.

In her mini-review, Dr. Bass speculated about how the cell cleaved the long dsRNA molecules into short dsRNA fragments. She hypothesized that a particular enzyme in a cell (called RNase III or "Dicer") may be responsible for cleaving the long dsRNA molecule chains into shorter dsRNA fragments, and that these shorter dsRNA fragments may initially have a 3' overhang of one or two nucleotides. (Heinrich Decl. Ex. 3 at 236.)³ However, Dr. Bass further speculated that the single-stranded overhang regions would be unstable due to the presence of

³ Dr. Bass's mini-review in *Cell* was appended as Exhibit 5 to Plaintiff's original Complaint. Although Plaintiff did not append the mini-review as an exhibit to the FAC, Plaintiff specifically refers to it in its FAC and it is central to Plaintiff's inventorship claims as evidence of Dr. Bass's alleged conception. As a result, the Court can and should consider the Bass mini-review in deciding this Motion. *Beddall*, 137 F.3d at 17.

enzymes known to destroy single-stranded RNA fragments. (*Id.* at 237 (“the 3’ overhangs would be more accessible to single-strand-specific nucleases present in the extract” (emphasis added)).) Accordingly, Dr. Bass speculated that the one or two nucleotide-long single-stranded overhangs would be “trimmed,” leaving blunt-ended dsRNAs of between 21 and 22 nucleotides in length as the actual RNA molecules responsible for RNAi. (*Id.* at 237 (“The initial cleavage might produce dsRNAs comprised of sense and antisense 23-mers, but the 3’ overhangs would be more accessible to single-strand-specific nucleases present in the extract, and trimmed to 21 and 22 nucleotide pieces.” (Emphasis added)).)

Contrary to Dr. Bass’s speculation, the Tuschl II inventors discovered in subsequent research that dsRNA molecules having 3’ overhangs are especially efficacious mediators of RNAi, and conceived the invention of synthesizing dsRNA molecules 19-25 nucleotides long, having 3’ overhangs of one to five nucleotides in length, to mediate RNAi in mammalian cells. As a result, all claims of the Tuschl II Patents require “synthesizing” and “combining” strands of RNA to form a dsRNA molecule having at least one 3’ overhang region of one to five nucleotides in length.

Dr. Bass’s mini-review in *Cell* was cited during the prosecution of the Tuschl II Patents. (*Id.* Ex. 1 at 4; Ex. 2 at 3.) The USPTO Examiner found the claims of the Tuschl II Patents to be novel and non-obvious over Dr. Bass’s mini-review and accordingly issued the patents. This is hardly surprising. Her mini-review did not disclose or suggest synthesizing and combining two RNA strands of 19-25 nucleotides to form a dsRNA molecule having 3’ overhangs of one to five nucleotides in length that would mediate RNAi in mammalian cells. Rather, her mini-review commented on experiments in which Dr. Tuschl and his colleagues inserted long dsRNA molecules into certain cell preparations and discovered that they were cleaved into shorter

dsRNA fragments that appeared to be responsible for RNAi. Her mini-review offered an hypothesis about how intracellular mechanisms (such as Dicer) may be responsible for cleaving the long dsRNA molecules into shorter dsRNA fragments. The intra-cellular cleaving process hypothesized by Dr. Bass is not part of the invention claimed in the Tuschl II Patents.

C. Dr. Bass's Alleged Collaboration With The Tuschl I And Tuschl II Inventors

Plaintiff points to four instances of supposed "collaboration" between Dr. Bass and the Tuschl I and Tuschl II inventors.⁴ First, Plaintiff alleges that Dr. Bass presented her "conception" regarding Dicer's role in RNAi to a meeting of scientists, including Dr. Zamore, at The Banbury Center, Cold Springs Harbor Laboratory (the "Banbury Conference"). (FAC ¶¶ 48, 49.) Second, Plaintiff alleges that Dr. Bass presented "on aspects of RNAi" at a meeting in Sandhamn, Sweden (the "Uppsala Meeting") in August of 2000 that was attended by Drs. Tuschl and Elbashir. (*Id.* ¶ 54.) At this meeting, Dr. Bass allegedly sat across from Dr. Tuschl at dinner and told him about experiments in her lab. (*Id.* ¶ 55.) Third, Plaintiff vaguely alleges that it was common for Drs. Bass, Zamore, Tuschl, Bartel and Sharp to meet, "collaborate" and share ideas at "meetings" such as the Banbury Conference. (*Id.* ¶¶ 50, 56.) Fourth, Plaintiff alleges that Dr. Bass conveyed to Drs. Zamore and Tuschl her conception regarding Dicer and 3' overhangs through their reading of a draft of Dr. Bass's mini-review. (*Id.* ¶¶ 45, 56, 57.)

III. THE UNIVERSITY OF UTAH HAS NOT PLEADED SUFFICIENT FACTS TO SUPPORT ANY OF ITS CLAIMS

A. Pleading Standards Under *Twombly* And *Iqbal*

To survive a motion to dismiss under Federal Rule of Civil Procedure 12(b)(6), a complaint must allege grounds entitling plaintiff to relief, which "requires more than labels and

⁴ Collaboration with the Tuschl I inventors is irrelevant as Plaintiff admits it is not seeking any relief with respect to any application in the Tuschl I patent family. (FAC ¶¶ 16, 62.)

conclusions [or] a formulaic recitation of the elements of a cause of action.” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555 (2007). The “[f]actual allegations must be enough to raise a right to relief above the speculative level” *Id.* A plaintiff must plead facts sufficient to state a claim that is “plausible on its face.” *Ashcroft v. Iqbal*, 129 S. Ct. 1937, 1949 (2009) (quoting *Twombly*, 550 U.S. at 570). To demonstrate plausibility, a plaintiff must go beyond pleading facts that, when assumed to be true, are “merely consistent with a defendant’s liability” *Iqbal*, 129 S. Ct. at 1949 (internal quotations omitted). Instead, a plaintiff must plead facts sufficient to permit “the reasonable inference that the defendant is liable for the misconduct alleged.” *Id.* The FAC does not meet this test.

B. The University Of Utah’s Inventorship Claims Fail

The University of Utah has asserted four claims for correction of inventorship under 35 U.S.C. § 256. Counts I and III seek to name Dr. Bass as sole inventor of the ’704 and ’196 Patents. Counts II and IV seek to add Dr. Bass as a joint inventor of the ’704 and ’196 Patents. All four claims lack merit.

“The inventors as named in an issued patent are presumed to be correct.” *Hess v. Advanced Cardiovascular Sys., Inc.*, 106 F.3d 976, 980 (Fed. Cir. 1997) (internal quotations omitted). That is, “[p]atent issuance creates a presumption that the named inventors are the true and only inventors.” *Ethicon, Inc. v. U.S. Surgical Corp.*, 135 F.3d 1456, 1460 (Fed. Cir. 1998). Thus, a party alleging non-joinder of an inventor, as the University of Utah does here, “must meet the heavy burden of proving its case by clear and convincing evidence.” *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1358 (Fed. Cir. 2004).

“Conception is the touchstone of inventorship.” *Burroughs Wellcome Co. v. Barr Lab., Inc.*, 40 F.3d 1223, 1227-28 (Fed. Cir. 1994). “Conception is the formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is

hereafter to be applied in practice.” *Ethicon, Inc.*, 135 F.3d at 1460 (emphasis added; internal quotations omitted); *Sewall*, 21 F.3d at 415 (“Conception exists when a definite and permanent idea of an operative invention, including every feature of the subject matter sought to be patented, is known.” (Emphasis added)). The inventor’s idea must be “definite and permanent enough that one skilled in the art could understand the invention.” *Burroughs Wellcome*, 40 F.3d at 1228. Conception is not complete until “only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation.” *Id.*

1. The University Of Utah Fails To State A Claim For Sole Inventorship

To prevail on its claims that Dr. Bass is the sole inventor of the Tuschl II Patents (FAC Counts I and III), the University of Utah must demonstrate, by clear and convincing evidence, that Dr. Bass independently conceived of the entire scope of the claimed inventions and that the named inventors of the Tuschl II Patents appropriated Dr. Bass’s invention as their own. *See, e.g., Sewall*, 21 F.3d at 415 (sole inventor must “independently conceive the subject matter” of the claim); *Vanderbilt Univ. v. ICOS Corp.*, 601 F.3d 1297, 1305-06 (Fed. Cir. 2010) (same). The FAC is woefully deficient in alleging claims for sole inventorship.

All claims in the Tuschl II Patents are directed to methods for preparing synthetic dsRNAs having at least one 3’ overhang that mediate RNAi in mammalian cells. (Heinrich Decl. Exs. 1, 2.) As discussed above, all claims require “synthesizing” RNA strands and “combining” such synthesized strands to form dsRNA. (*Id.*) Yet nowhere in the FAC does the University of Utah allege that Dr. Bass conceived of “synthesizing” and “combining” RNA strands to form a novel dsRNA molecule that mediates RNAi in mammalian cells.

In an apparent attempt to gloss over this fundamental and fatal defect of its sole inventorship claim, the University of Utah simply deletes the “synthesizing” and “combining” steps from its paraphrase of claim 1 in paragraph 69 of the FAC. (FAC ¶ 69.) It then alleges

that Dr. Bass conceived of the only novel aspects of this inaccurately paraphrased claim. (*Id.*) But this is not the test for sole inventorship. Instead, the University of Utah has the burden to prove that Dr. Bass conceived “every feature of the subject matter” of the claims, including the “synthesizing” and “combining” steps. *Sewall*, 21 F.3d at 415. The University of Utah has not even attempted to include that allegation in its FAC. Because the University of Utah nowhere alleges that Dr. Bass had a definite and permanent idea of the complete and operative invention in the Tuschl II Patents, its sole inventorship claims fail at the outset and should be dismissed.

Further, the University of Utah does not even have a basis to allege that Dr. Bass conceived of the 3’ overhang elements found in the claims of the Tuschl II Patents. All of the claims require dsRNA molecules having 3’ overhangs of *one to five* nucleotides in length. The FAC, in contrast, merely alleges that Dr. Bass was aware that Dicer would leave 3’ overhangs “of *about two* nucleotides in length.” (FAC ¶ 32 (emphasis added).) Thus, the FAC fails to allege that Dr. Bass conceived of the full scope of the 3’ overhang elements of the claims.

Moreover, as discussed above, Dr. Bass speculated in her mini-review that any overhang regions would likely be chewed away by enzymes known to destroy single-stranded RNA fragments, leaving blunt-ended, or “trimmed,” dsRNA molecules of between 21 and 22 nucleotides as the actual dsRNA molecules responsible for RNAi. *See supra* at 6-7. The Tuschl II inventors demonstrated that Dr. Bass’s hypothesis was incorrect, and that the RNA molecules having 3’ overhangs, not blunt-ended molecules, are the most efficacious agents of RNAi. (Heinrich Decl. Ex. 1 at col. 2:58-63.) Dr. Bass’s incorrect hypothesis would have sent researchers in the wrong direction. Further, if Dr. Bass had conceived of any methods of synthesizing small RNA molecules at all (and there is no allegation that she did), her mini-review in *Cell* indicates that she would have attempted to synthesize RNA molecules with blunt

ends, not with 3' overhangs, nor much less with 3' overhangs of one to five nucleotides in length. Thus, the very evidence on which the University of Utah relies to establish Dr. Bass's alleged conception demonstrates that she lacked the necessary understanding of the mechanism of RNAi to have conceived of any of the Tuschl II subject matter. It is no surprise, then, that the U.S. Patent and Trademark Office issued the Tuschl II Patents over Dr. Bass's mini-review in *Cell*. (*Id.* Ex. 1 at 4; Ex. 2 at 3.) Consequently, the University of Utah's sole inventorship claims fail.

Finally, the FAC fails to allege that Dr. Bass reduced to practice the inventions claimed in the Tuschl II Patents. The University of Utah alleges that Dr. Bass reduced her invention to practice in May 2000 through experiments confirming that RNAi does not occur in the absence of Dicer. (FAC ¶ 51.) This, however, is not what is actually claimed in the Tuschl II Patents. The University of Utah nowhere alleges that Dr. Bass actually reduced to practice a method for synthesizing and combining RNA strands for form dsRNA molecules having at least one 3' overhang and capable of causing RNAi in mammalian cells, as required by all claims in the Tuschl II Patents.

In sum, the University of Utah has failed to plead facts sufficient to show that its claims for sole inventorship in the FAC are "plausible on [their] face." *Iqbal*, 129 S. Ct. at 1949. As a result, the Court should dismiss Counts I and III of the FAC.

2. The University Of Utah Fails To State A Claim For Joint Inventorship

The University of Utah's claims to add Dr. Bass as a joint inventor of the Tuschl II Patents (FAC Counts II and IV) fare no better. The Federal Circuit has made clear that "the statutory word 'jointly' is not mere surplusage. For persons to be joint inventors . . . there must be some element of joint behavior" *Kimberly-Clark Corp. v. Procter & Gamble Distrib.*

Co., Inc., 973 F.2d 911, 917 (Fed. Cir. 1992). Although inventors do not need to physically work together, a joint invention must be the “product of *collaboration* of the inventive endeavors of two or more persons *working toward the same end* and producing an invention by their *aggregate* efforts.” *Id.* at 916 (emphasis in original; internal citations omitted).

“[C]ollaboration and joint behavior” has always been a “primary focus” of joint-inventorship. *Vanderbilt Univ.*, 601 F.3d at 1303. “A joint invention is the product of a collaboration between two or more persons working together to solve the problem addressed.” *Burroughs Wellcome*, 40 F.3d at 1227; *see also Univ. of Pittsburgh of the Commonwealth Sys. of Higher Educ. v. Hedrick*, 573 F.3d 1290, 1297 (Fed. Cir. 2009) (same). “The interplay between conception and collaboration requires that each co-inventor engage with the other co-inventors to contribute to a joint conception.” *Vanderbilt Univ.*, 601 F.3d at 1303.

The University of Utah’s allegations of collaboration fail because they are based on the fundamentally flawed and unprecedented theory that routine interactions between independent researchers at scientific conferences, such as having discussions during dinner (FAC ¶ 55), constitute sufficient “collaboration” to support a claim of joint inventorship. If the University of Utah’s theory of collaboration were to be adopted, it would have a chilling effect on the free exchange of ideas among members of the academic community. Fortunately, this is not the law. It is not sufficient that one person had an idea that was later communicated to another; “each inventor must contribute to the joint arrival at a definite and permanent idea of the invention as it will be used in practice.” *Vanderbilt Univ.*, 601 F.3d at 1303 (internal quotations omitted). Here, none of the four instances of collaboration alleged in the FAC is sufficient, either alone or together, to meet the collaboration requirement for joint inventor status.

a) *The Banbury Conference*

The University of Utah contends that Dr. Bass's presentation regarding Dicer's potential role in RNAi to a group of scientists at the Banbury Conference qualifies as collaborative activity. (FAC ¶¶ 48-50, 56-57.) This is plainly erroneous. The FAC does not allege that any of the named Tuschl II inventors even attended this meeting. The University of Utah's reliance on Dr. Zamore's attendance at this meeting is unavailing, because Dr. Zamore is not a named inventor of the Tuschl II Patents—he is only named as an inventor of the Tuschl I applications. Consequently, Dr. Bass's interaction with Dr. Zamore at the Banbury Conference is simply irrelevant to the University of Utah's joint inventorship claims.

b) *The Uppsala Meeting*

The University of Utah next points to Dr. Bass's participation at the Uppsala Meeting, which Drs. Tuschl and Elbashir also attended, as evidence of collaboration. (FAC ¶¶ 54-55.) The FAC alleges that Dr. Bass presented “on aspects of RNAi” at this meeting, though it does not allege that either Dr. Tuschl or Dr. Elbashir actually sat in on her presentation. (*Id.* ¶ 54.) Nor does the FAC allege how Dr. Bass's presentation disclosed any aspect of the invention claimed in the Tuschl II Patents. The only alleged interaction between Dr. Bass and either Dr. Tuschl or Dr. Elbashir at this meeting was a conversation “during dinner” between Dr. Bass and Dr. Tuschl, from whom she happened to be sitting across. (*Id.* ¶ 55.) The FAC alleges that Dr. Bass told Dr. Tuschl about some of her laboratory's experiments involving Dicer. (*Id.*)

Dr. Bass's dinner conversation with Dr. Tuschl does not constitute collaboration. Collaboration is the “inventive endeavors of two or more persons *working toward the same end*” *Kimberly-Clark*, 973 F.2d at 916 (emphasis in original; internal citations omitted). Dr. Bass's dinner conversation with Dr. Tuschl does not show two scientists setting their sights on a

fixed goal or participating in a shared endeavor. On the contrary, it is the kind of informal exchange between independent researchers, discussing their own separate research, which is a routine part of professional conferences. The Court should reject the University of Utah's unprecedented theory that such an informal exchange over dinner at a professional conference could bestow co-ownership in ensuing patents to the dinner companion. Such a windfall would stifle participation in, and interactions at, professional conferences to the detriment of scientific advancement.

Moreover, the University of Utah does not even allege that Dr. Bass spoke to Dr. Tuschl about her alleged 3' overhang invention during this dinner conversation, or about any other aspect of the invention claimed in the Tuschl II Patents. Thus, this conversation is irrelevant to determining whether Dr. Bass should be named an inventor on the Tuschl II Patents. *See Eli Lilly & Co.*, 376 F.3d at 1363-64 (rejecting joint inventorship claim where there was only evidence of general discussions of the subject matter of the patent with the inventors during four meetings held over the course of two years).

c) Unidentified Meetings To Share "Ideas"

The University of Utah also alleges that it was common for Drs. Bass, Zamore, Tuschl, Bartel and Sharp to meet, "collaborate," and share ideas at "meetings." (FAC ¶¶ 50, 56). The FAC says not a word about what was purportedly said at any of these unidentified meetings. This conclusory allegation falls far short of supporting a joint inventorship claim.

First, as a threshold matter, Dr. Bass's interactions with Drs. Zamore, Bartel or Sharp are irrelevant, as they are not named inventors of the Tuschl II Patents.

Second, the only meetings actually identified in the FAC are the Banbury Conference and the Uppsala Meeting. Under the pleading requirements set out in *Twombly* and *Iqbal*, the

University of Utah cannot rely on the conclusory allegation that there were other, unidentified meetings about which the FAC alleges no facts at all. Indeed, the FAC fails to describe what “ideas” were shared at these unidentified meetings. *See Eli Lilly & Co.*, 376 F.3d at 1363-64. The purpose of the pleading requirements of the Federal Rules is to “give the defendant fair notice of what the . . . claim is and the grounds upon which it rests.” *Twombly*, 550 U.S. at 555. The University of Utah’s conclusory allegation here provides no such notice.

Third, the University of Utah alleges that Dr. Bass and Dr. Tuschl “collaborated by working to the same end—understanding the mechanism and structure of molecules that mediate RNAi.” (FAC ¶ 56.) However, all scientists studying RNAi could be said to be working to this same end. But it would make a mockery of the collaboration requirement to suggest that they could thereby be deemed each other’s co-inventors. That is simply not the law.

d) Dr. Bass’s Mini-Review

Finally, the University of Utah claims that there was collaboration based on Drs. Zamore and Tuschl’s reading a draft of Dr. Bass’s mini-review.⁵ (FAC ¶¶ 56, 57.) The University of Utah does not claim that the Tuschl II inventors ever contacted Dr. Bass about the mini-review, or discussed it with her; but merely that they read it and cited it in their subsequent work. (*Id.* ¶¶ 45, 56-58.) Reading another scientist’s article plainly does not count as “collaboration.” Scientists are expected to read other scientists’ work in their field; in doing so, they do not become each other’s co-inventors. *See BJ Servs. Co. v. Halliburton Energy Servs., Inc.*, 338 F.3d 1368, 1373 (Fed. Cir. 2003) (finding that incorporating the work of a third party into a patented invention without any joint efforts between the inventors does not constitute joint-inventorship).

In sum, the University of Utah has not offered a single factual allegation indicating that Dr. Bass's "labors were conjoined with the efforts of the named inventors" of the Tuschl II Patents, as required to establish collaboration. *Eli Lilly & Co.*, 376 F.3d at 1359. As a result, its joint inventorship claims should be dismissed.

Finally, the University of Utah's joint inventorship claims fail for the additional reason that the FAC fails to allege sufficient facts that Dr. Bass contributed to the conception of the Tuschl II inventions. *See Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1575 (Fed. Cir.1996) ("To be a joint inventor, one must contribute to the conception of an invention.") (citing *Sewall*, 21 F.3d at 415). As discussed above, in the very article on which the University of Utah relies as evidence of Dr. Bass's alleged conception, Dr. Bass wrongly speculated that blunt-ended RNA molecules—not those with 3' overhangs—may be the agents of RNAi. *See supra* at III.B.1. Dr. Bass's incorrect hypothesis demonstrates that she lacked the necessary understanding of the mechanism of RNAi, and the role that dsRNAs with at least one 3' overhang region play in RNAi, to have contributed to the conception of the Tuschl II inventions even as a co-inventor.

C. The University Of Utah's State-Law Claims Are Derivative Of, And Fall With, Its Inventorship Claims

The University of Utah has also asserted state-law claims against Max Planck and Alnylam for conversion, replevin, unjust enrichment, common law unfair competition, false advertising, and violation of Mass. Gen. Laws c. 93A. (FAC Counts VI-XI.) Each of these claims is predicated on the University of Utah's inventorship claims: the conversion and replevin claims allege that Max Planck and Alnylam converted Dr. Bass's invention by

⁵ Again, Dr. Zamore is not named as an inventor on the Tuschl II Patents. Therefore, Dr. Bass's interactions with him are irrelevant.

commercially exploiting the Tuschl II Patents; the unjust enrichment claim alleges that Max Planck and Alnylam were unjustly enriched by using Dr. Bass's invention; the common law unfair competition claim alleges that Max Planck and Alnylam tried to pass off Dr. Bass's invention as their own; the false advertising claim alleges that Max Planck and Alnylam advertised Dr. Bass's invention as their own; and the c. 93A claim alleges that Max Planck's and Alnylam's unfair acts and practices include unjust enrichment and conversion based on using Dr. Bass's invention without naming her as an inventor of the Tuschl II Patents. (*Id.*)

All of Plaintiff's state-law claims thus reduce to a single alleged wrong: that Max Planck and Alnylam improperly claimed Dr. Bass's invention as their own. Dr. Bass, however, is not an inventor, joint or sole, of the invention claimed in the Tuschl II Patents. Because Plaintiff's state-law claims are derivative of its inventorship claims, Plaintiff's state-law claims likewise fail.⁶ *See Univ. of Colo. Found., Inc. v. Am. Cyanamid Co.*, 196 F.3d 1366, 1372 (Fed. Cir. 1999) (recognizing that plaintiffs' fraudulent nondisclosure and unjust enrichment claims depended on the status of the putative inventors as inventors, and that federal patent law preempts states from dictating standards for inventorship).

D. Massachusetts Does Not Recognize Claims For Conversion Or Replevin Of Intangible Property

Plaintiff's conversion and replevin claims allege that Max Planck and Alnylam converted Dr. Bass's intellectual property. (FAC Counts VI and VII.) These claims fail for the additional reason that Massachusetts law does not recognize claims for conversion or replevin of intangible property, such as intellectual property. *See, e.g., Struzziero v. Lifetouch Nat'l Sch. Studios, Inc.*, 677 F. Supp. 2d 350, 354 (D. Mass. 2009) (holding that conversion claims do not extend to

⁶ Plaintiff's c. 93A claim is also derivative of its unjust enrichment and conversion claims, consequently, if those claims fail, so does Plaintiff's c. 93A claim. (FAC ¶ 131.)

intangible property under Massachusetts law). Accordingly, the University of Utah has failed to state a claim for conversion or replevin for this reason, as well.

E. The University Of Utah Misconstrues The Requirements For A Common Law Unfair Competition Claim

To state a claim for common law unfair competition, the University of Utah must allege that Max Planck and Alnylam attempted to pass off their products or services as the University of Utah's products or services. *Datacomm Interface, Inc. v. Computerworld, Inc.*, 396 Mass. 760, 768-69 (1986). The University has alleged just the opposite: that Max Planck and Alnylam are attempting to pass off the University of Utah's intellectual property as their own. (FAC ¶¶ 123-125.) This is the opposite of what is required to state a claim for unfair competition. The University of Utah has not alleged, nor can it allege, that Max Planck and Alnylam have ever disguised their own products as those of the University of Utah. Consequently, the University of Utah's claim for common law unfair competition, FAC Count IX, fails for this reason, as well.

F. The University Of Utah Has No Claim For Declaratory Judgment, Damages Or A Constructive Trust With Respect To Any Other Patent Or Patent Application

The University of Utah admits that it cannot pursue any relief with respect to the Tuschl I applications, and, by implication any unissued Tuschl II application, because a claim for correction of inventorship can only be stated with respect to an issued patent. (FAC ¶¶ 16, 62.) Nevertheless, without any explanation or discussion, and without even identifying the patents at issue, the University of Utah sneaks into its claim for declaratory judgment a request for declaratory judgment as to "any other patent owned or controlled by Defendants of which Dr. Bass is the inventor or an inventor." (*Id.* Count V at ¶ 105.) This is expanded in the University of Utah's request for relief, which asks that the Court:

Issue a declaratory judgment naming Dr. Bass as sole inventor, or in the alternative as joint inventor, of all other U.S. and foreign

patents and patent applications in which the 3' overhang is claimed, and order assignment of all right title and interest in all such other U.S. and foreign patents and patent applications to Plaintiff.

(*Id.* ¶ G; *see also* ¶ H.) The University of Utah also seeks a constructive trust “over all *information, patent applications, patents, technology, products, and other materials* in the possession, custody, or control of Max Planck or Alnylam.” (*Id.* ¶ M (emphasis added).)

The University of Utah’s complete failure to identify these other patent applications, patents and products with respect to which it is seeking relief, or the factual and legal grounds for such relief, does not provide fair notice to the Moving Defendants of the University of Utah’s claim and the grounds upon which it rests, and hence it fails to state a claim for relief that is plausible on its face. *See Twombly*, 550 U.S. at 555; *Iqbal*, 129 S. Ct. at 1949.

IV. CONCLUSION

The University of Utah’s inventorship claims, asserted more than ten years after the alleged inventive acts and five years after the issuance of the Tuschl II Patents, are wholly without merit. The University of Utah’s attempt to characterize a few routine encounters at scientific conferences as collaboration fails as a matter of law to satisfy the requirements of joint-inventorship. The University of Utah fails to explain how Dr. Bass could be considered a sole inventor of the inventions claimed in the Tuschl II Patents when the FAC does not even allege that Dr. Bass conceived of synthesizing RNA or combining the synthesized strands as claimed in those patents. The University of Utah’s remaining claims are derivative of its meritless inventorship claims, thus they too fail as a matter of law. Finally, the Moving Defendants join in UMass’s Motion to Dismiss for lack of subject matter jurisdiction, as the Supreme Court has original and exclusive jurisdiction over this action. Accordingly, the Moving Defendants respectfully request that the Court dismiss the University of Utah’s FAC in its entirety.

Respectfully submitted,

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Certificate of Service

I, Thomas F. Maffei, hereby certify that this document filed through the ECF system will be sent electronically to the registered participants as identified on the Notice of Electronic Filing (NEF) on October 31, 2011.

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